

Title (en)

ELECTRIC MACHINE HAVING A TANGENTIAL ARCHITECTURE WITH ENHANCED AIR COOLING

Title (de)

ELEKTRISCHE MASCHINE MIT TANGENTIALER ARCHITEKTUR MIT ERWEITERTER LUFTKÜHLUNG

Title (fr)

MACHINE ÉLECTRIQUE PRÉSENTANT UNE ARCHITECTURE TANGENTIELLE AYANT UN REFROIDISSEMENT PAR AIR AMÉLIORÉ

Publication

EP 3251882 A1 20171206 (EN)

Application

EP 17171565 A 20170517

Priority

IT UA20163927 A 20160530

Abstract (en)

An electric machine (4) having a tangential architecture comprising a rotor (8), rotating about an axis of rotation (X-X), a stator (12), coaxial to the rotor (8) with respect to said axis of rotation (X-X), the stator (12) comprising a casing (16) which at least partially incorporates the rotor (8), a power supply body (20) which incorporates means of control (21) for the actuation, the power supply and the control of the electric machine (4), the power supply body (20) being placed outside the stator (12) and parallel to the axis of rotation (X-X) in a position substantially tangent to the casing (16) of the stator (12), the control means (21) comprising a power module (22) to power the electric machine (4). Advantageously, the power module (22) is provided with a main heat sink (23), suitable to dissipate the thermal power emitted by the power module (22) itself, and the power module (22) is thermally insulated from the remaining control means (21).

IPC 8 full level

B60K 11/06 (2006.01); **H02K 11/33** (2016.01)

CPC (source: CN EP US)

B60K 11/06 (2013.01 - EP US); **H02K 5/18** (2013.01 - EP US); **H02K 5/207** (2021.01 - CN EP US); **H02K 5/225** (2013.01 - US); **H02K 9/00** (2013.01 - CN); **H02K 9/04** (2013.01 - US); **H02K 9/06** (2013.01 - CN EP US); **H02K 9/227** (2021.01 - CN EP US); **H02K 11/0094** (2013.01 - CN); **H02K 11/30** (2016.01 - CN); **H02K 11/33** (2016.01 - EP US); **B60K 2001/006** (2013.01 - EP US)

Citation (search report)

- [XA] DE 102005032968 A1 20070208 - SIEMENS AG [DE]
- [XA] US 2013315692 A1 20131128 - HSIUNG TAI-YUAN [TW]
- [A] GB 2167608 A 19860529 - ROSCH WOLFGANG
- [A] EP 2639944 A1 20130918 - GRUNDFOS HOLDING AS [DK]

Cited by

US11975830B2; US11613350B1; US11358713B2; US11945576B2; US11358712B2; US11932384B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

US 10411560 B2 20190910; US 2017346366 A1 20171130; CN 107453551 A 20171208; CN 107453551 B 20220111; EP 3251882 A1 20171206; EP 3251882 B1 20190417; IT UA20163927 A1 20171130

DOCDB simple family (application)

US 201715603067 A 20170523; CN 201710392275 A 20170527; EP 17171565 A 20170517; IT UA20163927 A 20160530